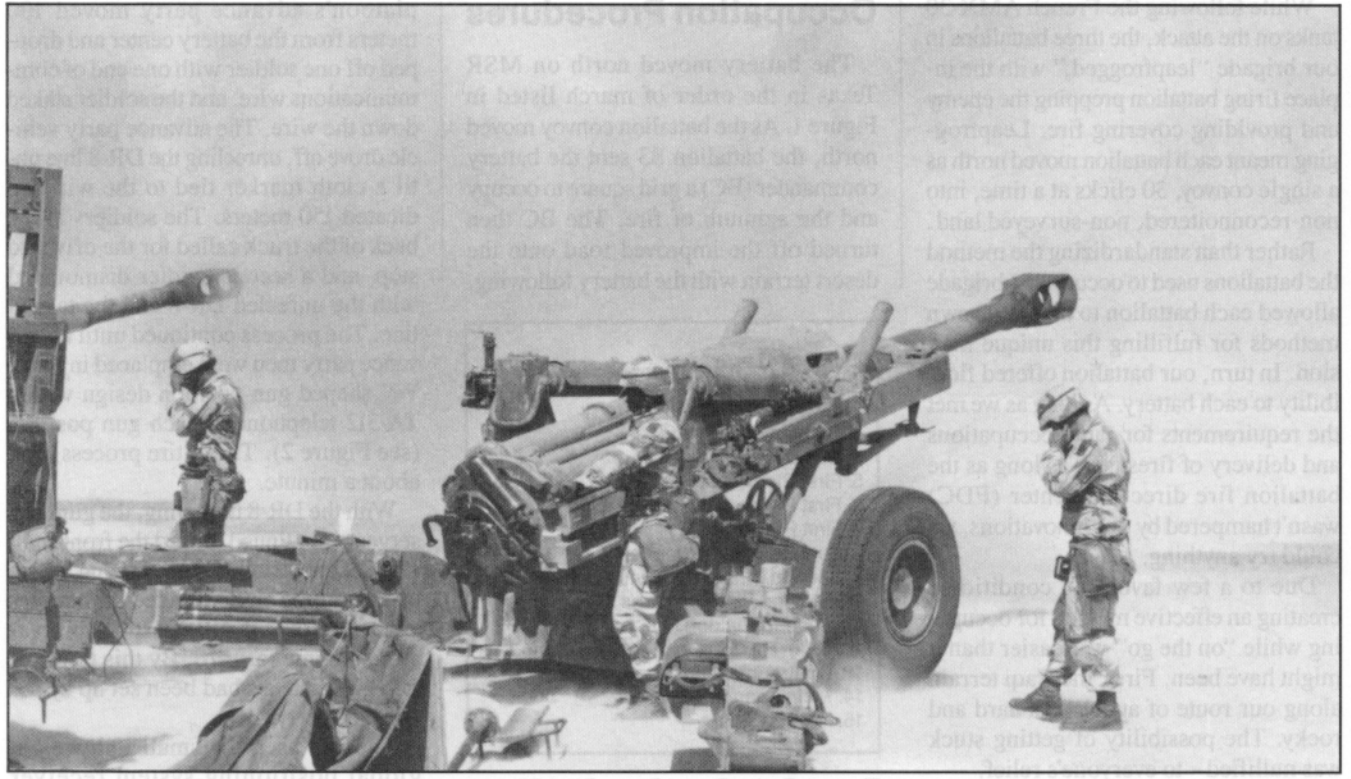

M198 Battery Occupation During an Overland Attack

by Captain Karl T. Stebbins and First Lieutenant Scott F. Snair

In August 1990, B Battery, 5th Battalion, 8th Field Artillery (5-8 FA), 18th FA Brigade left Fort Bragg, North Carolina for Saudi Arabia. As Operation Desert Shield marched closer to Desert Storm, two burning questions haunted us: "Would we be chasing behind allied tanks into Iraq? If so, exactly how were we going to do it?"

Our concerns were justified. As an M198 (155-mm) towed howitzer battery, getting stuck in the soft sands south of Kuwait started out as the norm rather than the exception. Experience with the sand and the cowboy-like realization that the faster we rode, the less likely we were to get stuck, made it easier to tow a 15,000-pound gun with a 28,000-pound truck (combat-loaded). But still, trucks got stuck.

And perhaps of most important concern were the presuppositions under which we had trained. All of our training exercises and evaluations had involved defensive scenarios. Many aspects of that training—from setting up nets and digging in to drawing up perimeter defensive sketches and range cards—contributed to the mind-set that, as a light, rapid deployment unit, our real-life mission inevitably would be defending a piece of land.

What was the *real*-life mission we were handed? To chase behind allied tanks into Iraq—of course.

The Mission

Our brigade supported the French 6th Light Armored Division and had the mission of destroying the remaining elements of the Iraqi 45th Infantry Division and securing the town of As Salman, Iraq—70 miles from the line of departure (LD)—and its airfield. As part of the feinting last-minute shift of allied forces to the west, our overland attack launched the ground war and defined the western flank.

While following the French AMX-30 tanks on the attack, the three battalions in our brigade "leapfrogged," with the in-place firing battalion prepping the enemy and providing covering fire. Leapfrogging meant each battalion moved north as a single convoy, 30 clicks at a time, into non-reconnoitered, non-surveyed land.

Rather than standardizing the method the battalions used to occupy, the brigade allowed each battalion to devise its own methods for fulfilling this unique mission. In turn, our battalion offered flexibility to each battery. As long as we met the requirements for rapid occupations and delivery of fires, and as long as the battalion fire direction center (FDC) wasn't hampered by our innovations, we could try anything.

Due to a few favorable conditions, creating an effective method for occupying while "on the go" was easier than it might have been. First, the Iraqi terrain along our route of attack was hard and rocky. The possibility of getting stuck was nullified—to everyone's relief.

Second, the allies had complete control of the skies. This would enable us to use an improved roadway—Main Supply Route (MSR) Texas—during the attack. Therefore, keeping up with the tanks wouldn't be as much of a challenge.

Third, because we always would be occupying behind the tanks in secured territory, the advance parties could spend less time "sweeping" a position for mines and enemy. Finally, the French division commander changed the plan from a 12-hour blitz to a 48-hour overland attack, easing our responsibilities in the operation.

With gun chiefs, FDC personnel, gunnery sergeants, platoon sergeants and platoon leaders all offering suggestions, we came up with a creative way of occupying. After a few dry runs and some fine tuning, we could lay the battery and be fully ready to fire in about the same time it took for a deliberate occupation, complete with an advance party preparation.

Our method offered more than the practiced emergency occupation or "hip-shoot." First, it used all assets available to the battery—advance parties, all key leadership and survey personnel. Second, it allowed the battery more than adequate dispersion. And finally, it provided the guns with three possible methods for receiving data: gun display unit (GDU), voice over PRC-126 radio and voice over wire.

Occupation Procedures

The battery moved north on MSR Texas in the order of march listed in Figure 1. As the battalion convoy moved north, the battalion S3 sent the battery commander (BC) a grid square to occupy and the azimuth of fire. The BC then turned off the improved road onto the desert terrain with the battery following.

Order of March
1. Commander
2. First Platoon Advance Party
3. Stinger Team
4. Survey Team
5. First Platoon Leader
6. First Platoon: Guns 1 through 4
7. First Platoon FDC
8. Second Platoon Leader
9. Second Platoon Advance Party
10. Second Platoon: Guns 5 through 8
11. Second Platoon FDC
12. Eight HEMTTs with Ammunition
13. Communications Team
14. Maintenance Team
15. First Sergeant

Figure 1. During Desert Storm, B/5-8 FA moved in this order of march. Advance party trucks were dispersed to take advantage of the .50 caliber machinegun protection. A .50 caliber was mounted on the maintenance truck.

As the BC approached an area that seemed suitable for occupation (relatively flat and free from large slabs of rock), he called a code word over the radio to the first platoon leader, who then relayed the code word and azimuth of fire over his PRC-126 radio. (Each gun and gunnery sergeant had a PRC-126 set on the battery internal frequency.)

At this signal, the convoy stopped. Both platoon leaders, both advance parties and the primary FDC broke from the convoy and came forward. The BC stopped and aligned his vehicle on the azimuth of fire. His vehicle represented battery center, thus orienting the advance parties.

The survey team stopped next to the BC's vehicle and gave him a 10-digit grid coordinate to the center of battery. The BC then called the grid and the azimuth of fire out to the FDC. The FDC entered the data into the battery computer system (BCS) and moved 100 meters behind the center of battery. At that point, the FDC was able to produce linear-sheaf firing data. (The Stinger team set up near the primary FDC.)

By this time the advance parties were well into preparing their positions. Each platoon's advance party moved 100 meters from the battery center and dropped off one soldier with one end of communications wire, and the soldier staked down the wire. The advance party vehicle drove off, unreeling the DR-8 line until a cloth marker tied to the wire indicated 150 meters. The soldiers in the back of the truck called for the driver to stop, and a second soldier dismounted with the unreeled DR-8 and the tagged line. The process continued until all advance party men were emplaced in "lazy W" shaped gun position design with a TA-312 telephone at each gun position (see Figure 2). The entire process took about a minute.

With the DR-8 unreeling, the gunnery sergeant continued toward the front right flank of the platoon. Dismounting, he set up the aiming circle, leveled the bubbles and called over the PRC-126 for his platoon to come forward. By this time, all gun guide stakes had been set up by the advance party.

The BC used his small lightweight global positioning system receiver (SLGR), a "Slugger," the Army's handy new satellite survey system device, to obtain a 10-digit grid coordinate for each of first platoon's gun positions. The second platoon leader used the battery's other SLGR to do the same for his platoon. Both sets of grid coordinates were sent back to the primary FDC, which entered the coordinates directly into the battery computer system's BCS;PIECES file. Before the guns were laid or the gunnery sergeants obtained deflections and subtense readings, the FDC could compute separate firing data for each howitzer.

The survey team set up an orienting station (OS) to the east of each platoon's lay circle to check magnetic direction and, if time permitted before the first fire mission, to check piece dispersion using referred deflections and subtense. The second OS also served as a safety circle. The survey team rechecked the center of battery grid coordinate.

The guns were laid using PRC-126 radios. First platoon switched to an alternative frequency after the gunnery sergeant called in to keep from interfering with second platoon's laying its guns. The advance party wire was used as a secondary means of laying, and then immediately after the pieces were laid, it became the gun display unit (GDU) line. After the guns were in order, a second wire was run for secondary voice. As soon as the platoon was laid, first platoon

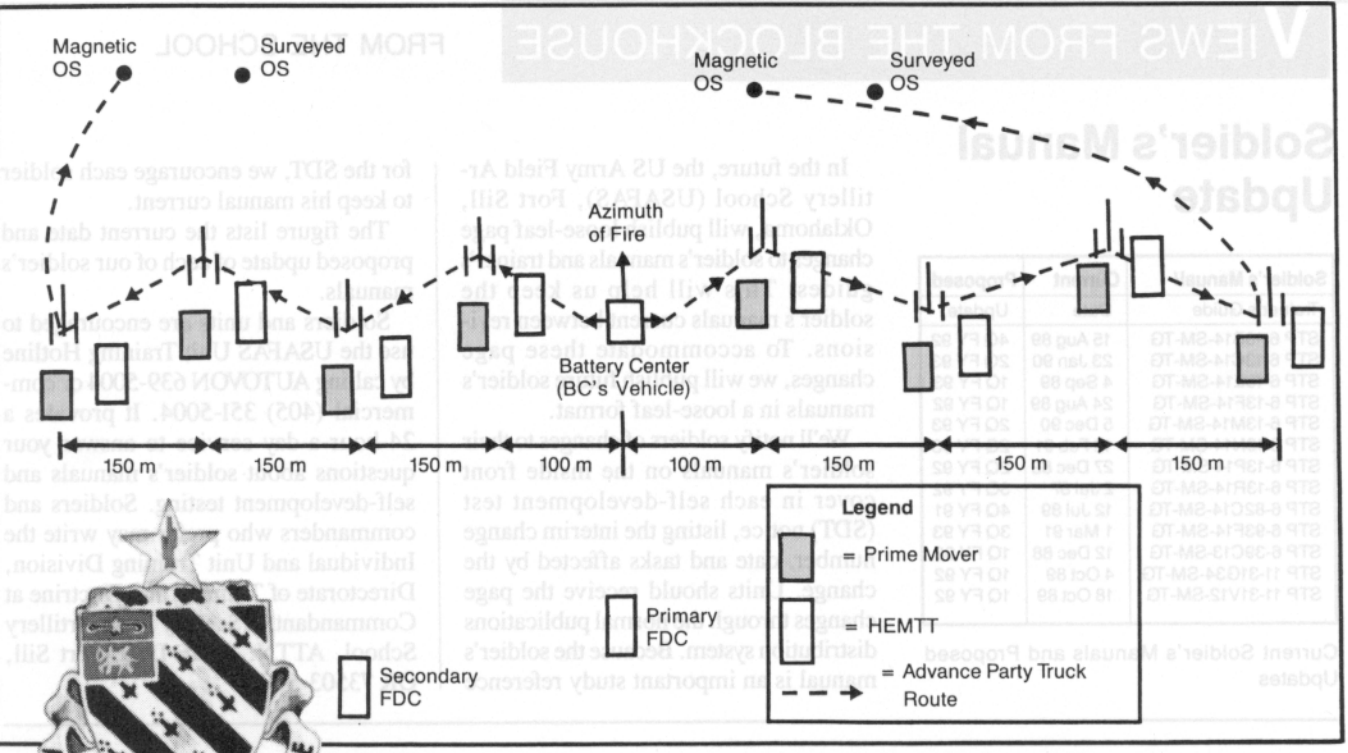

Figure 2: M198 Battery Occupation during an Overland Attack. Using this plan and following the article's procedures, B Battery could lay the guns and be fully ready to fire in about the time it takes for a deliberate occupation, including advance party preparations

switched the PRC-126 frequency back to the battery internal net, providing immediate voice communication with the FDC.

Thus, the FDC could send mission data by voice even before the guns were laid and by GDU even before they were in order. The secondary voice line was a backup in case PRC-126s malfunctioned or the enemy jammed them.

Each of the eight heavy expanded-mobility tactical trucks (HEMTTs) carried rounds, charges and fuzes and was assigned a gun section. The HEMTTs were arranged in the convoy accordingly. When the guns were laid, the first platoon leader signalled the HEMTTs to come forward. Each driver pulled in next to his assigned section, backing in from behind the gun line in case a fire mission was underway.

After reporting the battery in place and ready to fire, the FDC updated its backup computer system (BUCS) and firing chart. Each platoon leader also maintained an updated BUCS and firing chart. The FDC checked SLGR gun positions with those generated by the BCS using deflections from the guns to the surveyed OSs and the subtense distances. It provided all information to the secondary FDC.

The rest of the occupation procedures merely improved the basic position. (To ensure a 6400-mil capability and because of the short time spent in each firing position, we didn't use camouflage nets.) The battery tested GDUs, performed safety checks on the gun line and ensured it could defend the position.

Because the gun trucks and HEMTTs were lined up in the convoy "heads" with Gun One leading, pulling off the right side of the road (as opposed to the left) was ideal. But, the situation didn't allow us to always choose the right side or predict which side we would occupy next. One of the occupations was off the left side of the road, which meant Gun Eight had to travel the longest distance around the other guns. Although obviously a longer occupation, it was otherwise smooth.

Taking the SLGR shortcut for determining piece dispersion substantially cut the time it took the FDC to compute eight different sets of firing data. Verifying the gun grid coordinates with deflections and subtense distances, we found the SLGR data was never more than a few meters different. The device proved to be extremely accurate and useful.

Initially using the PRC-126 radios as the primary means of laying and as the primary voice communication with the FDC had been a cause for concern. Laying the battery over TA-321 telephones always had been the battery's preferred method and previous experiments with the older PRC-68 radios had produced mixed results. But we found the PRC-126 very clear and reliable. Furthermore, the PRC-126 batteries (we had plenty) were more dependable than PRC-68 batteries.

Given a unique situation, we believe B Battery's method of occupying during an overland attack was fast, reliable and lent itself to producing accurate fire. Firing battalion massing missions, 5-8 FA neutralized seven confirmed targets during the march to As Salman, Iraq.

Captain Karl T. Stebbins commands B Battery, 5th Battalion, 8th Field Artillery, 18th Field Artillery Brigade, Fort Bragg, North Carolina. He also served as a battery executive officer and fire support officer (FSO) for 2d Battalion, 78th Field Artillery, Germany.

First Lieutenant Scott F. Snair is Leader of First Platoon, B Battery, 5th Battalion, 8th Field Artillery. He also was the Platoon's Fire Direction Officer (FDO). Lieutenant Snair served as an enlisted Fire Direction Specialist for the 1st Cavalry Division, Fort Hood, Texas, before receiving his commission.